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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,423	09/13/2004	Jukka Ranua	Lain-084	6248

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Kubovcik & Kubovcik
The Farragut Building
900 17th Street N W
Suite 710
Washington, DC 20006

EXAMINER

KINNEY, ANNA L

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/507,423

Applicant(s)

RANUA ET AL.

Examiner

Anna Kinney

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/13/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8-11 and 13-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 8 recites the broad recitation 2 to 60, and the claim also recites 2 to 6, which is the narrower statement of the range/limitation.

Regarding claims 9 and 10, the phrase "for example" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claims 11 and 17, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claims 13-16, the phrase "in case of softwood" renders the claim indefinite because it suggests that softwood may not be used, in which case, no step is recited.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Quick et al (U.S. Patent 6,231,721) in view of Skatter et al (U.S. 2004/0057551 A1).

With respect to claim 1, Quick discloses a method for adjusting the fibrous properties of pulp to a preselected level (col. 3, lines 19-35), characterized in that in the manufacture of the pulp, a wood material is used (col. 3, lines 36-59), and discloses that the number of annual rings is related to maturity of the wood (col. 1, lines 16-21), which is related to a certain fiber dimension property (col. 3, lines 32-59).

Quick does not disclose expressly classifying the wood by log.

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Skatter discloses classifying wood material by log according to the number of annual rings into categories (p. 2, ¶ 0014).

Quick and Skatter are analogous art because they are both directed to a similar problem solving area, that of sorting logs according to dimensions and quality of the wood.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to classify logs as described by Skatter in the pulp production method of Quick to obtain the invention as specified in claim 1.

The motivation would have been to optimize and efficiently utilize forest resources including previously underutilized forest products (Quick, col. 1, lines 48-50), and in European softwood mills the logs are pre-sorted according to dimensions and sometimes quality, and information about the internal quality is needed to make the best decision (Skatter, p. 1, ¶ 0006, lines 6-7 and 19-22).

With respect to claim 2, Quick discloses that most juvenile wood is generally discarded at the site of timber harvest (col. 1, lines 32-34), which the Examiner construes as classifying in connection with felling the wood.

Skatter discloses classifying logs during transport through a processing plant (p. 2, ¶ 0025, lines 1-4), which the Examiner construes as classifying in a plant.

With respect to claim 3, Skatter discloses that the wood material is classified mechanically (p. 2, ¶ 0025).

With respect to claim 4, Quick discloses that the wood material originates in southern pine (col. 3, lines 36-38), which the Examiner considers to be a tree that has a periodic growth habit.

With respect to claim 5, Quick discloses that the wood material is softwood (southern pine; col. 3, lines 36-38).

With respect to claim 6, Skatter discloses that the wood material is hardwood (p. 1, ¶ 0006, lines 17-19).

With respect to claim 7, Quick discloses that the fibre dimension property refers to the fibre length or the fibre coarseness (col. 3, lines 19-59).

With respect to claim 8, Quick discloses that the wood material is classified according to the number of annual rings into different categories, the number of which is 2 (e.g., juvenile and mature; col. 1, lines 17-22), which is one specific point within the claimed range of 2 to 60.

With respect to claim 9, Quick and Skatter are applied as in the rejection to claim 1, above. Quick further discloses that the wood material is classified according to the number of annual rings, into the following category: less than 20 annual rings (col. 1, lines 17-22). Quick also discloses different fiber properties in 30-year-old trees (col. 3, lines 44-59), which the Examiner construes as representing the category 21 to 30 annual rings.

With respect to claim 10, Quick and Skatter are applied as in the rejection to claim 9, above. Quick discloses that the wood material is classified according to the number of annual rings, into the following categories: less than 10 annual rings (col. 1,

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lines 17-22), less than 20 annual rings (e.g., 15 year thinnings; col. 3, lines 36-57), and less than 30 annual rings (e.g., 30-year-old trees, col. 3, lines 44-59).

With respect to claim 11, Quick and Skatter are applied as in the rejection to claim 1. Quick discloses that the desired fibre dimension property is obtained by combining wood materials obtained from various categories (col. 4, lines 13-18).

With respect to claim 12, Quick discloses that the method can be used to manufacture chemical pulp (col. 10, lines 29-36). At the time of the invention, it would have been obvious to a person of ordinary skill in the art that the method can be used to manufacture pulp by either a mechanical, chemical, or chemi-mechanical process, since these are the processes available to produce pulp from wood material.

With respect to claim 13, Quick that in case of softwood (col. 3, lines 36-38), to obtain a fibre length of less than 2.0 mm, a wood material is selected, wherein the wood material is 15-year thinnings (1.9 mm; col. 3, lines 53-57), which the Examiner contrues to represent a category in which the number of the log's annual rings at the butt of the log is less than 20 annual rings.

With respect to claim 17, Quick and Skatter are applied as in the rejections to claims 1, 4, 7, 11, and 12, above.

With respect to claim 18, Quick and Skatter are applied as in the rejections to claims 1 and 11. Quick further discloses that a fibre product is made of the pulp (col. 4, lines 28-31).

Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quick and Skatter as applied to claim 1 above, and further in view of Rydholm (Sven A. Rydholm, Pulping Processes, Interscience Publishers, Sept. 1967).

With respect to claims 14, 15, and 16, Quick discloses a fibre length of 2.1 mm for 7.5-year-old tops obtained from 30-year-old trees, and 2.7 mm fibre length from 30-year-old trees. Quick does not disclose expressly fibre length in annual ring categories recited in claims 14-16. The Examiner has interpreted the use of "..." to indicate a range.

Rydholm discloses that fiber length has a fairly wide distribution curve (p. 54, lines 17-18) due to heredity factors as well as growing conditions (p. 54, lines 11-16). Therefore, at the time of the invention, it would have been obvious to a person of ordinary skill in the art that the fibre length would not only be dependent upon the number of annual rings, but also on the species selected and the conditions under which the tree grew. It would have further been obvious to select a species and an annual-ring-number category combination to optimize the fibre length to the dimension desired.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to consider fibre length variations as described by Rydholm in the log classification method of Quick and Skatter to obtain the invention as specified in claims 14-16.

The motivation would have been that the increase in fiber length during the juvenile period is of industrial importance, since increasing forest areas consist of

plantations on short rotation periods, and because of the increasing use of thinnings as pulpwood (p. 54, lines 1-4).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anna Kinney whose telephone number is (571) 272-8388. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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STEVEN P. GRIFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700